

SECRET20 May 1966
(Revised 31 May 1966)**EXPLORATORY DEVELOPMENT LABORATORY BRANCH 1967 PROGRAM****The Mission:**

The Laboratory Branch is charged with providing technical and laboratory support for development activities. In addition to acting as technical advisor, the Branch is expected to generate significant scientific advances which affect the fundamental technological bases for NPIC equipment development: It will continue to explore, define, and advance the state-of-technology when considered pertinent to the Center's development rationale. The Branch must supply specific information regarding new areas of technology which can be exploited, and assist in the technical aspects of the contractual implementation of the subsequent development programs. The internal Laboratory program should, in the final analysis, continually provide new insights into the interrelation of the physical, optical, photographic and human processes so that the basis for future development considerations may be constantly updated.

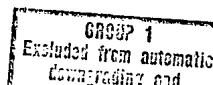
Internal Branch Organization:

The Laboratory is organized into four distinct sections, only two of which have been formalized at this writing: 1) Technical Services, 2) Scientific Support, 3) Analytical Support, and 4) Engineering and Fabrication. The last two have not been formally established although personnel are available to form part of the necessary staffs. Until the Branch acquires more scientists, these sections will be served functionally by the available personnel on an as-required basis. For purposes of clarifying the intended program in terms of projects, and to indicate the placement of responsibility within the Branch framework, it will be useful to define the services and responsibilities of these sections.

Technical Services Section

The Technical Services Section will be responsible for providing specialized services and laboratory investigations pertinent to this Center's interests. These will include:

- a. The provision of standards and testing services in photometry, optics, and metrology. The section will procure, develop where necessary, and maintain high-quality standards for the evaluation of optical performance. The section will maintain stocks of working standards and will assist other Center elements in applying the appropriate equipment and techniques to problems of performance testing.

SECRET

SECRET

2

b. Experimental work on the application of new materials, equipment and techniques to staff, Center, and community problems which require and bring to bear the specialized capabilities of the section members. The orientation of this section's efforts along these lines will point towards the investigation and initial exploitation of ideas developed within the staff and Center. It will tend to be more equipment-oriented than the other sections. Proposal evaluation will be carried out when relevant to this section's capabilities.

c. Provide technical assistance to the proposed Test and Evaluation Branch, as required, in the modification of developmental equipment under test to insure the optimum product performance and improvement.

d. Liaison with other groups in and out of the Center who have related and/or complementary capabilities, the sum of which can be brought to bear on problems of mutual interest.

Scientific Support Section

The Scientific Support Section will be responsible for providing specialized investigations and consultant services to the Plans and Development Staff and the Center. These will include:

a. Studies and other types of investigations relating to concept feasibility and general technological exploration and exploitation to provide an understanding of the physical and psycho-physical substrata underlying the photographic exploitation process.

b. Where applicable to Center requirements, analytical and experimental investigations to advance, define, and explore the state-of-technology in optics, the photographic process and related disciplines.

c. Technical information and advice on advanced technical and technological problems relating to the development of exploitation equipment. In this capacity it serves to explain and translate the more advanced concepts into ideas and discussions from which implementation by the Development Branch can proceed. It shall also provide technical representation for the Center in meetings, committees, and similar associations requiring the specialized knowledge and capability this section possesses.

SECRET

SECRET

3

Analytical Support Section

This group will provide mathematical analysis in support of the physicists and engineers in their assigned problems. It is intended to expand the capabilities of the staff by providing new analytical techniques, in simplifying the old, and in freeing the physicists and engineers from the mathematical burdens which often tend to mitigate a thorough pursuit of the significant physical aspects of the problem. Additionally, the section will be responsible for maintaining a computer-utilization capability for laboratory problems, and an awareness of the state-of-technology in the general computer field to provide the necessary expertise to the Development Branch.

Engineering and Fabrication Section

The group will provide an engineering design and fabrication capability for the laboratory, in support of its own experimental investigations and to satisfy its requirements for highly specialized, one-of-a-kind equipment.

Incoming projects are generally assigned according to the function of the section, the availability of specialized manpower, and the immediate project requirements throughout the branch. While personnel are generally assigned on a nearly permanent basis to a particular section, the organization will remain sufficiently flexible to cut across section lines and place the properly qualified personnel on a specific problem when there are no clear-cut options for sectional assignment. All project assignments are issued by the Branch Chief, through his Deputy: individual assignments within the projects are assigned through the Section Chief, who remains responsible for the prosecution and routine termination of the projects.

Project Designations:

Projects which delve into scientific problems with any sort of depth tend to elude definition of time limits and specific goals: specification of termination times are nearly always impossible. If the project is of a fundamental nature, it nearly always poses new questions which require additional work, and so on. In recognition of this, the Branch does not consider individual projects as separate entities, but regards each as belonging to one of five major categories: therefore, with the exception of projects received from outside this staff, there are only five project numbers used, for purposes of Center reporting. While these categories tend to follow along Section lines, there are enough significant differences to warrant their inclusion here.

SECRET